

REMARKS

Rejections under 35 U.S.C §103

Claims 17-29 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. Application 2003/00193367 to Fogagnolo. Claims 20-22 have been canceled without prejudice. Claims 17, 23 and 29 have been amended. Support for the amendments of claims 17, 23 and 29 can be found in the specification, in particular fig.4 and the corresponding portion of the specification. No new matter has been added.

Rejection of claims 17, 23 and 29

In the Action, page 3 with regards to claim 17, page 4 with regards to claim 23 and page 6 with regards to claim 29, the Examiner asserts that "the device of Fogagnolo is used to detect the presence of liquid in a pipe, therefore, the reference implicitly suggests detecting a clog in a pipe because the absence of the liquid in the pipe wherein liquid should be present or flowing through would indicate that there is a clog in the pipe that prevents liquid from flowing through or being present at a certain level". Applicants respectfully disagree.

Applicants submit that Fogagnolo suggests that an "absence of the liquid in the pipe wherein liquid should be present or flowing through" would indicate that there are steam bubbles in the pipe, because Fogagnolo discloses (paragraphs [0005] and [0006]) that steam may be present in the pipe of a liquid level sensor. Nowhere does Fogagnolo disclose or suggest that the pipe of a rodless sensor may be clogged, and thus that the presence of a clog in the pipe may cause the absence of the water in the pipe. In this regard, Applicants submit that Fogagnolo teaches away from concluding "that the absence of the liquid in the pipe wherein liquid should be present or flowing through would indicate that there is a clog in the pipe". Applicants submit that Fogagnolo fails to disclose or fairly suggest a method comprising the step of "moving a capacitive proximity switch along the length of a pipe wherein a clog is jammed", as recited in claim 17, or a detector comprising a switch "provided for being moved along the length of a pipe wherein a clog is jammed", as recited in claims 23 and 29.

Further, Applicants submit that even if one skilled in the art had thought of the possibility of using the teachings of Fogagnolo to detect a clog in a pipe, Fogagnolo

nowhere disclose or suggest the possibility to render sensor 30 mobile with regards to the pipe. Fogagnolo discloses (paragraph [0028]) a control circuit "arranged to measure changes in the capacitance of sensor 30 relative to ground due to water movement within the probe, and to compare each sensed capacitance value with one or more threshold values, thereby generating a control signal for electric valve 44". Nothing in Fogagnolo discloses or suggests that such a system would work properly if sensor 30 were mobile with regards to the pipe. Applicants submit that Fogagnolo fails to disclose or fairly suggest a method comprising "moving a capacitive proximity switch along the length of a pipe wherein a clog is jammed at an unknown location", as recited in claim 17, or a detector comprising a switch "provided for being moved along the length of a pipe wherein a clog is jammed at an unknown location", as claimed in claims 23 and 29.

Finally, Fogagnolo discloses only the detection of a liquid level, and fails to disclose or fairly suggest a method for "detecting a clog jammed in a pipe", as recited in claim 17 or a detector "provided for being moved along the length of a pipe wherein a clog is jammed", as claimed in claims 23 and 29, that operates regardless of the fluid, be it a liquid or a gas, present in the pipe.

In view of the above, Applicants submit that claims 17, 23 and 29 are patentable over Fogagnolo. Should the Examiner disagree, Applicants respectfully request him to clearly and specifically point out where Fogagnolo discloses the above features in accordance with 37 C.F.R. 1.104(c)(2).

Rejection of claims 18-19 and 24-28

Claims 18-19 depend directly on claim 17 and claims 24-28 depend directly or indirectly on claim 23. Applicants submit that claims 18-19 and 24-28 are patentable over Fogagnolo at least in view of their dependency.

Newly added claims

Claims 30-31 have been added. Support for claims 30-31 can be found in the specification, in particular fig.4 and the corresponding portion of the specification. No new matter has been added.

Claims 30-31 depend directly or indirectly upon claim 17. At least in view of their dependency, claims 30- 31 are deemed to be patentable over Fogagnolo.

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In view of the above, Applicants submit that the application is now in condition for allowance and respectfully urge the Examiner to pass this case to issue.

The Commissioner is authorized to charge any additional fees that may be required or credit overpayment to deposit account no. 12-0415. In particular, if this response is not timely filed, the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136(a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection therewith may be charged to deposit account no. 12-0415.

I hereby certify that this correspondence is being deposited with the United States Post Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

January 6, 2005
(Date of Transmission)

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Respectfully submitted,



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